Bayfield County Land & Water Conservation Dept. Aquatic Invasive Species Program

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INSIDE THIS ISSUE:

Species Profile: *Phragmites*

Phragmites, also known as Common Reed, is a grass-like plant that occurs in Bayfield County as both a native (*Phragmites australis* ssp. *americanus*) and non-native (*Phragmites australis* ssp. *australis*)

The native form tends to have less-robust seed heads, a smooth stem with black fungal circles, and loses its leaf sheaths in the winter. The exotic form originates from Europe with dense seed heads, a ribbed stem, and retains its leaf sheaths. The exotic form can reach heights up to 16 feet, whereas the native may only reach 10 feet. The most common reproductive method is by underground stems called rhizomes, which serve to connect all of the individual stems via an underground "root". However, they can also spread by above ground stems and seed. They both can be weedy; however, the exotic is much more aggressive and can crowd out native vegetation in an area. It is a threat to many shoreline and riparian plants including wild rice and rush beds, which are critical wildlife and waterfowl habitat .

Phragmites standing tall

Phragmites is used in the wastewater treatment process. It assists in removal of water and other contaminants from biosolids. Because it has recently been discovered to spread via seed, special attention and monitoring needs to take place where *Phragmites* is used in for this purpose.

Some troublesome stands of exotic *Phragmites* have been found along the Lake Superior shoreline in Chequamegon Bay, and in the communities of Red Cliff, Bayfield, and Washburn. With help from the Great Lakes Indian Fish and Wildlife Commission (GLIFWC) we have worked hard this fall to control these patches, aided by their location and ease of accessibility. Still, we greatly appreciate your cooperation in reporting any new sightings of *Phragmites.* It is now a NR 40 Prohibited species in our area, so it is required by law to be managed.

For information on *Phragmites* interactive maps, you can visit http://invasives.glifwc.org/phragmites/ or for educational information go to http://wisconsinwetlands.org/phragmites.htm

***Phragmites* stand in Washburn, WI**

The "NET" has many resources about invasive species.

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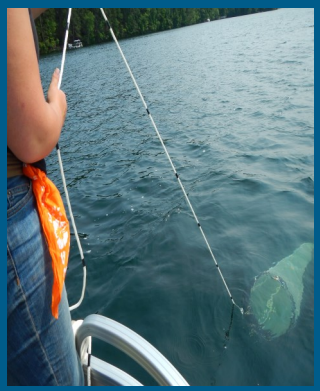

Using the "NET" to Catch Invasive Species on the Web

Many people may think of invasive species work as outdoors. While collecting samples and performing control require one to be undaunted by work in the elements, you can also take a stand against invasive species from your own home. There are virtually limitless outlets of information on the internet. The number of websites available definitely outnumbers the number of invasive species we track. So which ones are the most useful? Well, that depends on what you want to do. You can map the invasive species that are in your area, learn about the newest threat species, check on monitoring that has been done, report new sightings, or you can simply find out information of fish, depth, and other qualities of your favorite lake. Many of these are easily accessible from your smart phone, or have apps available. The following is a list of websites grouped by function that we have found to be great resources: con't page 7

Upcoming Events!

June 4: CBCW Training at Barnes Town Hall from 9 AM-12 PM
CBCW Training at Namakagon Town Hall from 2 PM-5 PM

June 6: Kids Fishing Day at NGLVC and Native Plant Sale at Northland College, both from 9 AM-1 PM

June 13-14: Drain Campaign (statewide)

June 26: NW WI Lakes Conference at Hayward High School, 8 AM-3 PM

June 29: Invasive Species Training at NGLVC, 9 AM-12 PM

July 2-5: Landing Blitz Weekend (statewide)

Early Detection Monitoring Efforts

In the past four years, 36 lakes in Bayfield County have been surveyed for AIS. Twenty-five of these were done using extensive early detection protocols as part of the statewide early detection monitoring effort. These lakes were searched using surface and snorkeling surveys for invasive plants and animals. Plankton samples were also taken to determine if spiny water fleas and zebra mussels were present. Another 11 lakes were surveyed using a meandering visual check by county staff or volunteers. The following is a list of the lakes checked in the past four years for invasive species: Atkins, Bass (near Lake Owen), Bladder, Bellevue, Buskey Bay, Cable, Chippewa, Cisco, Crystal, Delta, Drummond, Eagle, George, Half Moon, Heart, Indian, Long, Millicent, Namakagon, Owen, Perch, Perry, Pickerel, Pigeon, Robinson, Sand Bar, Siskiwit, Star, Taylor, Tahkodah, Tomahawk, Twin, Twin Bear, Upper, Middle, and Lower Eau Claire.

This project is meant to provide baseline data for tracking the spread of AIS. Bayfield County continues to partner with the Wisconsin DNR, and will be entering the fifth year of this five-year project. This year, the following Bayfield County lakes will be surveyed: Anodanta, Bass, Bellevue, Diamond, Garden, George, Hildur, Lake Owen, and Pigeon. If your lake is not listed and you think an AIS survey should be done, please contact the county AIS coordinator at ATeal@bayfieldcounty.org. We would be happy to spend some time on your lake!

CBCW Results and New Grants Available

Clean Boats Clean Waters (CBCW) programs have become much easier to implement. The DNR realizes the great importance and impact these programs have on preventing the spread of aquatic invasive species. Thus they have developed a streamlined and noncompetitive grant process to support a watercraft inspection program at your lake or stream.

You can find information on the simple application process online at http://dnr.wi.gov/lakes/cbcw/.
If you need help in implementing a CBCW program do not hesitate to contact the Bayfield County Conservation Department. The Iron River Area has received funding to support CBCW inspections in 2015. Applications are due to the state December 10th.

Here are the highlights from 2014 inspections throughout Bayfield County:

CBCW Program	Boats Inspected	People Educated
Barnes Area	3,430	7,704
Cable Area	372	782
Lake Owen	1,230	2,898
Lake Superior	1,221	1,844
Pike Chain / Delta Lake/ Long Lake (Iron River)	2,139	4,812
TOTALS:	**8,392**	**18,040**

One of Bayfield County's Clean Boats, Clean Waters interns using our portable boat wash station to disinfect a water-craft at Bayfield Marina in Bayfield, WI.

Lake Ecology Education Program

Faculty and Students: Photo by Ted Eastlund

"No child left on shore."

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Curly-Leaf Pondweed

CLP in the Eau Claire Chain of Lakes

In Spring of 2012 Curly Leaf Pondweed (CLP) was discovered at the boat landing on Middle Eau Claire Lake by the Drummond 7th graders while on their LEEP Day Field trip. Through a largely volunteer effort, it was found that CLP was in both Upper and Middle Eau Claire Lakes. No CLP was found on Lower Eau Claire Lake after a survey performed by Douglas County AIS Coordinator Carrie Sanda.

During the summer of 2012 work was led by Lee Wiesner and other volunteers to hand pull CLP at the boat landing. This however proved very difficult as the plant has an extensive rhizome (underground stem) system, and the water quickly becomes too cloudy to see where to pull. Three times the site was visited and plants were hand pulled. Concern arises while hand pulling since any fragments of the rhizome or turions (hard winter buds that look like small versions of the plant) that escape can start a population in a new location. These turions can be released as the plant dies back in July, so pulling the plant is still a better option than leaving it in place. In 2014 the boat landing was checked for CLP. It is still present, but has lower abundance. There are many native plants in the area that was once all CLP, and the CLP was much easier to pull this year.

A lake consultant has performed a point-intercept survey (systematic survey of plant community in the lake) in Spring of 2013 in order to determine the extent of CLP infestation. This past summer the consultant returned to check on the status of the CLP and determined that it has not spread from the original known locations. The consultant also brought a team of students to pull CLP in areas too deep for volunteers. These students were SCUBA certified and pulled CLP from a large bed of plants. Upper and Middle will be resurveyed this year to determine the distribution of the CLP. Until then, keep up the good work and keep monitoring for invasive species!

What's so bad about Zebra Mussels?

One of the most well-known invasive species are zebra mussels. Fortunately, they are not known to be in any inland lakes in Bayfield County. In fact they haven't been found in any inland lakes in Northwest Wisconsin. This is good news! So why is it that whenever someone mentions aquatic invasive species people say, "Oh, you mean like zebra mussels." Well, they are in Lake Superior and are one of the more highlighted species in the news. Everyone has heard about them, but most do not know why they are bad news. Nor do they know what can be done to control, or better yet, prevent them.

THE DAMAGE

The obvious problems caused by an invasive species are usually visual. There are many images of beaches veiled by mussel shells sharp enough to cut your feet or equipment coated with zebra mussels attached by their byssal threads. They can also damage motors by clogging the cooling system. However, these impacts are small when looking at the real damage these mussels cause. Zebra mussels love to feed on phytoplankton, which are the base of the aquatic food web. This reduces both the oxygen and food available for many small fish and other animals in the water. With the removal of large amounts of phytoplankton comes sudden and unnatural improved water clarity. The increase in water clarity allows light to penetrate deeper, stimulating plant growth. This could lead to dangerously low oxygen levels in the winter when this increased plant biomass is decomposing. Zebra mussels do shy away from one kind of food, though. Cyanobacteria, also known as blue-green algae, appear to be undigested and can thrive in an area where nutrients are being released due to zebra mussels gluttonous feeding. These blue-green algae blooms pose a health risk to humans and pets.

WHERE ARE THEY

Zebra mussels are in 187 lakes and streams in Wisconsin. Recently they were found in Northern Minnesota in Pike Lake and Lake Winnibegosh. So why haven't we found any invasions in Bayfield County's inland waters? I can tell you that it is not for lack of looking. Many volunteers throughout Bayfield County have been trained on how to sample for invasive species, and surveys of our priority waters do not show a sign of them. Do our waters support zebra mussel growth? Water chemistry plays a large factor in whether a lake is a suitable home for zebra mussels. They are limited by how much calcium is in the water. Thanks to a study by the University of Wisconsin Center for Limnology we can classify lakes on their suitability of zebra mussel habitat. There are actually 43 water bodies in Bayfield County that are suitable and 124 that are borderline suitable for zebra mussel invasion. To view a list of these lakes you can visit the Bayfield County AIS website or contact the county AIS specialist at ATeal@bayfieldcounty.org.

HOW DO WE STOP THEM

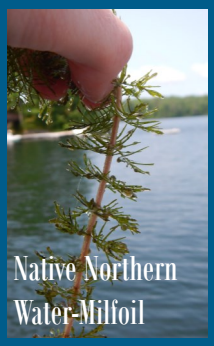
The best way to prevent zebra mussels is to follow the AIS prevention steps of **INSPECT, REMOVE, DRAIN, NEVER MOVE**. The most important of these to remember is to drain the water from your equipment and allow it to dry or clean it with a mild bleach solution. Zebra mussel veligers (offspring) are microscopic and float around in water left in recreational equipment and can easily be transported by someone unfamiliar with the harm they could cause. Remember to also drain your live wells and tilt your motors down at the boat landing to remove all the water.

Volunteer to monitor for zebra mussels. As adults, they are one of the easiest invasive species to identify. If you are unfamiliar with monitoring, you can attend a training event and learn how to monitor for all kinds of invasive species. **REMOVE and INSPECT YOUR DOCKS**. This is a great time to check for zebra mussels and report any suspicious specimens.

Make a Rapid Response Plan for your lake. Simply developing the plan will help educate many people. This allows for immediate action to be taken to prevent the spread of zebra mussels. Unfortunately once they are present, there are limited options in managing them in the lake and eradication is unlikely. However, knowing what to do about the problem will make everyone more aware of how they can stop zebra mussels.

Zebra Mussels

Past Events



Native Northern Water-Milfoil

Native White-Water Crowfoot

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Bayfield County Fair

Lake Owen EDM Partner Day

Knotweed Knockouts

AIS Bridge Snapshot Day in Drummond

Scuba Hand Pulling CLP

Bayfield County Land & Water Conservation Department

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Check out our website: www.bayfieldcounty.org

New AIS Coordinator: Andy Teal

Hello everyone! I am Andy Teal, the new Bayfield County AIS Coordinator. I graduated from UW-Stevens Point in December 2013 with a Bachelor of Science degree in Biology and a Water Resources minor. Last year I worked for the Nebraska Game & Parks Commission, Wildlife Division but much of my work history has centered around aquatic invasive species. A big thanks to Paul Skawinski for teaching me so much about AIS and native aquatic plants! Some of my personal and professional interests include kayaking, snorkeling, and hiking. I look forward to working with you and will see you on, in, or near the water!

Find us on: facebook

https://www.facebook.com/pages/Bayfield-County-AIS-Project/486473981401597?fref=ts

"NET" - continued:

List of Waterbodies with Invasives:

http://dnr.wi.gov/lakes/invasives/AISByWaterbody.aspx

Reporting new sightings:

Great Lakes Early Detection Network - www.ibis.colostate.edu/gledn/

App available - http://apps.bugwood.org/mobile/gledn.html

View Maps of Invasive Species locations:

Great Lakes Indian Fish and Wildlife Commission - http://maps.glifwc.org/

Learn about Lakes:

WI DNR Lakes Page - http://dnr.wi.gov/lakes/lakepages/ (essentially the old yellow Lakes book now available online)

Get updates on lake happenings around the state http://lakes-l.blogs.govdelivery.com/

Species Specific info:

Phragmites - www.greatlakesphragmites.net

Purple Loosestrife - http://www.seagrant.umn.edu/ais/purpleloosestrife_info

Japanese Knotweed - http://www.kingcounty.gov/environment/animalsAndPlants/noxious-weeds/weed-identification/invasive-knotweeds/japanese-knotweed.aspx

Eurasian Watermilfoil and Curly leaf Pondweed - http://dnr.wi.gov/topic/invasives/fact

All other Invasives:

WI DNR - http://dnr.wi.gov/topic/invasives/

WI Sea Grant - http://www.seagrant.wisc.edu/home/Topics/InvasiveSpecies.aspx

Control Options - http://mipncontroldatabase.wisc.edu/